Patent Standards and Procedures

Literature Summary and Discussion of Prospects

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Patent Standards and Procedures

- Standards
  - Novelty
  - Utility
  - Nonobviousness
- Procedures
  - Priority system
    - 1st to Invent vs. 1st to File
  - Optimal Patent Quality
    - Optimal examination
    - Registration only?
    - Opposition system
    - PTO Reforms
      - Salary/retention
      - Internal incentives

Literature Review: Patent Standards: "The Classics"

- John Stuart Mill, *Principles of Political Economy (1848)*
  - Emphasized **utility** requirement
  - Once past threshold, amount of reward depends on degree of utility
- Machlup & Penrose (1950)
  - Administrative Costs a factor in anti-patent arguments
  - Implicit emphasis on low standard of patentability

Lit. Review

- Michael Polanyi 11 Rev Econ Stud. 61 (1944)
  - P. 72: “Invention” too difficult to test
  - Replace patents with rewards, compulsory licenses
- Fritz Machlup (1958)
- ***AN ECONOMIC REVIEW OF THE PATENT SYSTEM***, SUBCOMM. ON PATENTS, TRADEMARKS & COPYRIGHTS OF THE SENATE COMM. ON THE JUDICIARY, 85TH CONG., 2d SESS., (Comm. Print 1958)

Lit Review: Machlup

- “[I]t is after all the "difficulty" of inventing which determines the relative scarcity of invention and, consequently, provides the rationale for the policy of creating an extra stimulus for inventive effort. This presupposes …that it is invention rather than enterprising innovation which the patent system is supposed to encourage. ***If society aims at … attracting venture capital into … investment, then the controversies about the nature of "inventions" are beside the point*** [;]the innovators' risks are not proportional to the costs and results of the inventive efforts. – Machlup (1958), at p. 9.

Lit Review: Machlup

- "I have suggested that, although it may be impossible to estimate the total benefits and costs of the patent system, one may attempt to analyze the marginal benefits and costs of particular moderate changes in the duration, scope, or strength of patented protection."-Fritz Machlup (1984)

Ed Kitch (1966)

- “But for” standard
- “[A] patent should not be granted for an innovation unless the innovation would have been unlikely to have been developed absent the protection of a patent.”
- Edmund W. Kitch, Graham v. John Deere: New Standards for Patents, 1966 SUP. CT. REV. 293, 301.

Other sources of “but for” standard

- S.C. Gilfillan, The Root of Patents, or Squaring Patents by their Roots, 31 J. PAT. OFF. SOC'Y 611, 611 (1949): “A patent is helpful and proper when it rewards sufficiently useful creative work which might not have been done without that prospective reward.…”
- F.M. SCHERER, Ind. Mkt. Structure & Econ Perf., 2d ed. 1980, at 442-43.

Merges, 7:1 [Bkly] High Tech LJ (1992)

- The patent system has greater effect on the incentive to develop inventions as opposed to the incentive to invent.
- Important marginal influence on decisions to try to invent.
- Suggests a moderate lowering of patentability standards for very high-cost research.
- Tries to introduce bridge between ***technical merit*** and ***economic variables: especially COST***.

O'Donoghue (1998) 29 Rand J. Econ. 654

- Varying minimum quantum of invention can influence rewards to pioneer and/or improver(s)
- Higher standard of patentability induces larger quantum innovations, increasing market incumbency of pioneers, enhancing reward to innovation
- Restrictive assumptions in model . . .
- See also Samson Vermont, "Pioneering Obviousness," 29 AIPLA QJ 375 (2001)

Patent Procedures: Lit Review

- Alfred Kahn, "Fundamental Deficiencies of American Patent Law," 30 AER 475, 485 (1940)
  - "Dragnet" patent applications: amending claims during long pendency to capture competitors' developments
  - Basic problem is cost and complexity of assigning individual property rights in era of large scale collective invention
  - Patent procedure favors "the powerful and the unscrupulous" – p. 486.

Two Tier Patent Protection

- Good example is European system of “petty patents”
- Separates high-quality, high-value inventions, from novelties etc.
- Good comparative studies by Jerome Reichman [2000] (53 Vand. L. Rev. 1743), and Mark Janis [1999] (e.g., 40 Harv. Int'l L.J. 151).

Internal Patent Office Incentives

- Merges, 14 Bkly. Tech. LJ 577 (1999)
  - Optimal validity rate, optimal examination
  - Internal reforms: lessons from Personnel Economics studies (alter incentives, etc.)
  - Need for opposition system; criticized as inadequate by some: Thomas, 2001 Univ. Ill. L.Rev. 305
- Lemley, 95 Nw. L.Rev. 1495 (2000)
  - “Rational Ignorance at the Patent Office”
  - Current expenditures may be closer to optimal
  - Very few patents merit detailed scrutiny; best done through litigation

New Directions

- Growing consensus on ***need to address social welfare gap***: difference between private and social cost of invalid patents
  - See Richard Gilbert Presentation, Feb. 6, 2002
- Scott Kieff, Washington Univ. Law School: "The Case for Registering Patents," working paper
- Jay Thomas, "Patent Bounties," 2001 Univ. Ill. L.Rev. 305: proposes that the Patent Office award prior art informants with a bounty assessed against applicants

Recent Empirical Work

- General concern with lowering of patent standards – speculation about effects

Josh Lerner, 150 Years of Patent Office Practice

- Empirical survey of worldwide historical trends in patent office procedure
- Where information asymmetry is greater, patent systems have adapted:
  - More discretion for applicants
  - Division of labor between patent offices and courts

Lerner (2001)

- One insight that emerges from the regulatory economics literature … is the extent to which information [asymmetry] problems can be overcome if the regulator offers a menu of incentive contracts. Even if the regulator cannot observe the differences between companies, he may design a range of alternatives that can discriminate between firms of different quality. In this way, the problems typically associated with asymmetric information … can be alleviated.

John R. Allison & Mark A. Lemley
The Growing Complexity Of The United States Patent System
U.C. BERKELEY SCHOOL OF LAW PUBLIC LAW AND LEGAL THEORY (WORKING PAPER (2001))

- The increase in the number of prior art references cited and the length of prosecution before the Patent Office suggest that issued patents are getting better scrutiny.

Ian Cockburn, Sam Kortum & Scott Stern, “Are All Patent Examiners Equal?”

- Working paper. Feb. 2002, avail. SSRN.com
- Answer: No!
- Patent quality declining: pre-1990 patents upheld more often
- Experience and workload not correlated with validity rates -- ?
- More “generous” (liberal) examiners work on patents that are cited more often; they also have higher invalidity rates!